

ABSTRACT OF THE DISCLOSURE

5 A part of a wavelength division multiplexed optical
signal output from a multiplexing area is extracted as a
check signal, and then the extracted signal is guided to
a multiplexing area. A reentered check signal is detected
at a facet located opposite a facet from which the check
10 signal has been reentered, and the state of the detected
check signal is determined. Furthermore at need, on the
basis of the result of the determination, a control signal
is output that controls operations of a plurality of optical
signals input to the multiplexing area.